two nonconductive sections, and third and fourth measurement electrodes followed by three nonconductive sections.

REMARKS

By the foregoing amendments to the claims, claims 1-10 have been amended and claims 11-20 added to address informalities which arose in the translation and/or clarify the invention.

Early and favorable consideration with respect to this application is respectfully requested.

Should questions arise in connection with this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: _____

Patrick C. Keane
Registration No. 32,858

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

Date: November 1, 2001

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Page 1, Paragraph Beginning at Line 3

[DESCRIPTION] BACKGROUND

The invention relates to an apparatus for capacitively determining a position of a counter wheel [in accordance with the precharacterizing clause of patent claim 1.]

Page 2, delete the last two lines.

Page 4, Paragraph Beginning at Line 1, replace as follows:

In another, preferred embodiment, the fixed electrodes are combined to form pairs comprising a [transmitter] emitter electrode and a [receiver electrode] collector electrode. This embodiment has the advantage that crosstalk between the individual electrodes is largely prevented. In addition, erroneous measurements caused by any imbalance or by a change in the axial position of the counter wheel are minimized.

Page 4, Paragraph Beginning at Line 9

[Further advantageous embodiments can be found in the dependent patent claims.]

BRIEF DESCRIPTION OF THE DRAWINGS

Page 7, Paragraph Beginning at Line 1,

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The fixed electrodes 3 are arranged along the circumference of the counter wheel 1, with an air gap which is at least approximately constant being present between the electrodes 3 and the counter wheel 1. The fixed electrodes 3 are preferably of identical design and preferably extend at least approximately over the entire width of the counter wheel 1. In this example, two respective fixed electrodes 3 are combined in pairs, with four pairs being formed. One electrode in a pair forms [a transmitter] an emitter electrode 30, and the second electrode forms a [receiver] collector electrode 31. In this example, the [transmitter] emitter electrodes 30 are electrically connected to one another. The [transmitter] electrodes can also be driven individually, however. The [receiver] collector electrodes 31 are connected to the evaluation electronics 5 individually, and the [transmitter] emitter electrodes 30 are connected to the evaluation electronics 5 together.

Page 7, Paragraph beginning at Line 19,

Each pair of fixed electrodes 3 forms a counterpart for a sector S, with the pair being of corresponding length. In this case, the pairs of fixed electrodes 3 are preferably arranged such that the four pairs are opposite four successive sectors. The four pairs are preferably arranged such that adjacent electrodes in two adjacent pairs are of the same type, that is to say that a [transmitter] emitter electrode in a first pair is arranged next to a [transmitter] emitter electrode in a second pair. This allows crosstalk to be reduced.

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Pages 7-8, paragraph beginning at Line 37,

If a measurement electrode 12 is in the region of a fixed electrode pair 3, the [transmitter] emitter electrode 30 indicates charge to the [receiver] collector electrode [30'] 31 via the measurement electrode 12. If there is no measurement electrode 12 directly opposite, then virtually no charge is indicated back to the [receiver] collector electrode [30'] 31. This makes it possible to allocate a binary value of 0 or 1 to each fixed electrode pair 3. Hence, the sequence shown in figure 3 permits all values between 0 and 9 to be detected in binary format.

Please delete page 10 in its entirety.

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Marked-up Claims 1-10

1. (Amended) An apparatus, in combination with a counter wheel, for capacitively determining a position of [a] the counter wheel[, where] comprising:

fixed electrodes [are] arranged at a distance from the counter wheel[,]; and [the counter wheel has]

means for changing a capacitance on the basis of position, [characterized in that] the means for changing the capacitance on the basis of position [are] including: a sequence of measurement electrodes extending over [the] a circumference of the counter wheel, and electrically nonconductive sections arranged between said measurement electrodes.

2. (Amended) The apparatus as claimed in claim 1, [characterized in that] wherein the fixed electrodes are arranged along the circumference of the counter wheel.

3. (Amended) The apparatus as claimed in claim 1, [characterized in that] wherein the counter wheel has a body made of an electrically nonconductive material.

4. (Amended) The apparatus as claimed in claim 1, [characterized in that] wherein the counter wheel has a body made of an electrically conductive material having recesses which are distributed over the circumference and contain electrically nonconductive inserts.

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Marked-up Claims 1-10

5. (Amended) The apparatus as claimed in claim 1, [characterized in that] wherein the fixed electrodes are combined in pairs, [in that] wherein all the measurement electrodes on the counter wheel are of the same length, and [in that] wherein each pair is of a common length which corresponds to the length of the measurement electrodes on the counter wheel.

6. (Amended) The apparatus as claimed in claim 5, [characterized in that] wherein each pair of electrodes comprises:

[a transmitter] an emitter electrode and a [receiver] collector electrode, with adjacent electrodes in two adjacent pairs being of [the] a same type.

7. (Amended) The apparatus as claimed in claim 1, [characterized in that] wherein an opposing electrode is provided which extends along at least half the circumference of the counter wheel at a distance therefrom.

8. (Amended) The apparatus as claimed in claim 5, [characterized in that] wherein at least one of four fixed electrodes [or] and four electrode pairs are provided.

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Marked-up Claims 1-10

9. (Amended) The apparatus as claimed in claim 1, [characterized in that] wherein the distance between the measurement electrodes and the fixed electrodes, which are respectively opposite them, according to the position of the counter wheel, is at least approximately the same.

10. (Amended) The apparatus as claimed in claim 5, [characterized in that] wherein the sequence distributed over the circumference involves a first measurement electrode followed in sequence by a first nonconductive section, a second measurement electrode followed by two nonconductive sections, and third and fourth measurement electrodes followed by three nonconductive sections [is implemented as shown in figure 3].